

The development of professional schools in America

Light, Donald W.

Veröffentlichungsversion / Published Version
Sammelwerksbeitrag / collection article

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:
GESIS - Leibniz-Institut für Sozialwissenschaften

Empfohlene Zitierung / Suggested Citation:

Light, D. W. (1982). The development of professional schools in America. In K. H. Jarausch (Ed.), *The transformation of higher learning 1860-1930 : expansion, diversification, social opening and professionalization in England, Germany, Russia and the United States* (pp. 345-365). Stuttgart: Klett-Cotta. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-339266>

Nutzungsbedingungen:

Dieser Text wird unter einer Deposit-Lizenz (Keine Weiterverbreitung - keine Bearbeitung) zur Verfügung gestellt. Gewährt wird ein nicht exklusives, nicht übertragbares, persönliches und beschränktes Recht auf Nutzung dieses Dokuments. Dieses Dokument ist ausschließlich für den persönlichen, nicht-kommerziellen Gebrauch bestimmt. Auf sämtlichen Kopien dieses Dokuments müssen alle Urheberrechtshinweise und sonstigen Hinweise auf gesetzlichen Schutz beibehalten werden. Sie dürfen dieses Dokument nicht in irgendeiner Weise abändern, noch dürfen Sie dieses Dokument für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen.

Mit der Verwendung dieses Dokuments erkennen Sie die Nutzungsbedingungen an.

Terms of use:

This document is made available under Deposit Licence (No Redistribution - no modifications). We grant a non-exclusive, non-transferable, individual and limited right to using this document. This document is solely intended for your personal, non-commercial use. All of the copies of this documents must retain all copyright information and other information regarding legal protection. You are not allowed to alter this document in any way, to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public.

By using this particular document, you accept the above-stated conditions of use.

The Development of Professional Schools in America*

In the second half of the nineteenth century and the first third of the twentieth, the professions in America experienced profound changes in status and character that were intimately bound up with the creation of the modern university, not only because similar forces affected both, but also because each reacted to and used the other in consolidating its identity. Too often observers do not appreciate that professional education is the crucible of a profession—the place where the nature of professional work, its license, and its mandates get defined¹ even when, as seems to be more often the case than not, that definition conflicts with what practitioners actually do. How, then, in this vital period, did professional schools take shape and lay the foundation for the professions as we know them today?

The challenge of this question can only be partially met because scholarship on the subject lacks depth and because our purpose is only to reflect on some of the extant material concerning selected professions. While considerable research has been done on the transformation of higher education in America and the various professions, few scholars have examined the intersection of the two. Those who have considered these relationships underplay the role of social status, power and displaced class conflict in shaping what they regard as the “inevitable” form of professional schools and the modern research university.² In order to transcend these limitations, this essay examines in a preliminary way the development of professional schools in the ministerial, the academic, and the medical professions.

The social history of professional education needs concepts and theories which will advance one beyond the particulars of institutional history and which will avoid the trap of treating all professions as if they were like medicine. One such concept is *structural ambiguity*. Developed originally by Eleanor Barber and Robert K. Merton,

* I am indebted to Roma Heaney for her research assistance on this essay. Konrad Jarausch, Barbara Wheeler, Gibson Winter and James McLachlan made valuable suggestions.

1. Everett C. Hughes, “Professions,” 374–386 in Everett C. Hughes, *The Sociological Eye* (Chicago, 1971).
2. Talcott, Parsons and Gerald Platt, *The American University* (Cambridge, Mass., 1973). C. Jencks and David Riesman, *The Academic Revolution* (New York, 1968).

who used the less precise term, sociological ambivalence,³ this notion refers to the cross-cutting pressures and expectations experienced in a role or by an institution when it finds itself located at the intersection of two social structures for which it has different meanings.

The history of professional schools, at least in the United States, is the history of structural ambiguity arising from the schools being part of (or akin to) the university as well as the training center for a practicing profession. Responding to and assuming the attributes of a university by valuing research, hiring and training specialists, publishing journal articles that are taken to represent professional reality, and creating an academic profession have put professional schools in constant tension with the bulk of the profession which expects them to train competent practitioners. This leads to another, related ambiguity about the mission of the schools: to what extent are they to *train* practitioners and to what extent are they to *educate* pure disciples of the profession's core knowledge? The most important outcome of this tension has been to create a hybrid, to train disciples of the profession's knowledge base, who too often tend to be neither well prepared with the skills for being effective practitioners nor able to bring a critically honed intellect to bear on questions of law, medicine or theology.

The development of professional schools has also involved the process of *status transfer* by which an elite faction used the universalistic rhetoric of science and the modern university to legitimate its own particularistic approach to professional work by institutionalizing it in such a way as to preserve its privileged class position. The modern university itself is an example of this process, and it is here that the interest of university entrepreneurs in the last quarter of the nineteenth century, who acted as agents for the new industrial barons, coincided with the interests of professional elites. Even when they did not gain control of state licensing, they significantly reduced the size and stature of their competition. Status preservation and its transfer to a professional guise helps to explain the desire to create a circle of associates who share the common culture of educated men and who uphold an intellectual tradition. Although these themes are only implicit in most accounts, they cut across the several professions beginning with the most prestigious of the nineteenth century, the ministry.

Training Ministers in the Seminary:

Most accounts of the professions do not include the ministry; for scholars find it easiest to leave its difficulties behind. It was a profession in decline, and were one to account for that one would have to revise most of the theories of the professions, which rely so heavily on the medical profession and the themes of monopoly and dominance that they cannot explain decline. Moreover, training ministers presents the greatest challenge to the study of professional schools because the graduate seminary arose before the modern university, and to a significant degree seminaries did not become affiliated with colleges and universities. There has been a long history of mu-

3. Robert K. Merton and Elinor Barber, "Sociological Ambivalence," in Robert K. Merton, *Sociological Ambivalence in Other Essays* (New York, 1976).

tual suspicion which still manifests itself today. Seminary staff suspected university faculty of being faithless if not hostile. The latter, on the other hand, wondered how serious intellectual work could be done if one were upholding a particular religious world-view. As if these anomalies were not enough, the student of the professions faces a dearth of scholarship on ministerial education except for the Auburn Historical Project which examines the roots and dilemmas of the seminary as an institution of professional education.⁴

One cannot understand the origins of the seminary and its relation to early colleges without appreciating the fact that most of the early colleges functioned as *de facto* seminaries and were expected to produce an educated class of ministerial leaders. On the eve of the Revolution the colonies could boast of nine colleges—Harvard, William & Mary, Yale, New Jersey, Kings, Rhode Island, Queens, Philadelphia and Dartmouth. Modelled on the English universities of Oxford and Cambridge, all these institutions were intended for the upper class expatriate Englishman seeking to create order in the New World. The guiding principle in the new colleges was the need to nurture orderly, scholarly and moral values in aristocratic gentlemen who would one day become the leaders of the new nation. Their training accordingly stressed traditional subjects, such as classics, law and philosophy, and emphasized the importance of religion. Therefore, each college reflected the religious commitment of its founding fathers. Yale and Princeton, for example, represented the efforts of men striving for the “pursuit of denominational survival in an environment of religious diversity”—Puritan and Presbyterian respectively.⁵

In this context of post-revolutionary secularization, church fathers feared that the solemn duty of educating ministerial leaders could no longer be entrusted to the colleges. In 1808 Archibald Alexander complained that, “Our *seminaries of learning*, although increasing in literature and numbers, furnish us with few preachers.” In fact, these feelings had been developing in institutional shifts that foreshadowed the creation of the seminary as a solution to the profession’s problems. The Great Awakening of the 1740s had been viewed with skepticism by Harvard and Yale so that increasingly “awakened” young men graduating from college studied for part or all of a year with one of the more prominent revival preachers. “The pro-awakening forces were no longer content to rely only upon the established colleges as the primary focus of theological education.”⁶ With the rapid expansion of settled territory after the Revolution and the unmet need to produce more ministers, many parishes set up rather rigorous courses of study and examination for the fledgling ministers who apprenticed under their senior minister.

The specific circumstances surrounding the founding of the first seminary involved the election of Henry Ware, a well-known Unitarian, to be the Hollis Professor of Divinity at Harvard in 1805 and the election of another well-known Unitarian, Samuel Webber, to be its president in 1806. The evangelical Congregationalists, whose own candidate, Eliphalet Pearson, had been acting president of Harvard in the preceding two years, found in this defeat a sign of heresy. No longer could Harvard be trusted

4. The Auburn History Project, *Why The Seminary?* (typescript, October 19, 1978).

5. Frederick Rudolph, *The American College and the University: A History* (New York, 1962).

6. The Auburn History Project, 8–15.

to educate properly evangelical leaders, and Pearson resigned from the Harvard faculty to establish with others a new kind of school in the village of Andover. Named Andover Theological Seminary, it upstaged Harvard by providing a broad post-baccalaureate education in Christian Theology, Sacred Literature and Sacred Rhetoric. "Not only would the school be a graduate institution," the Auburn Project concludes, "it would also have a faculty of more than one. No such graduate institution yet existed in the United States."⁷

Besides having three professors of sacred studies, the seminary at Andover required for admission "a college education or its equivalent [and] evidence of piety as in a conversion, moral character and membership in a congregation."⁸ Moreover, it mounted a three-year program of post-baccalaureate study and charged tuition. Yet nineteen students were waiting for admission the year it opened. By 1836, Andover had received 693 students with only 42 lacking a college degree. No other professional school would come close to these standards of admissions and rigor for almost a century. Moreover, Andover became the model for many of the seminaries established in subsequent years so that its standards were widely emulated (e.g., in Princeton Theological Seminary), though practical necessity often required compromises.

From this brief sketch several conclusions can be drawn. First, the Auburn Project misleads when it concludes that "the seminary arrived on the scene suddenly and without warning."⁹ It is true that the particular design of the seminary emerged full-blown from the planning sessions at Andover, but this was more like a flower stemming from deep and old sociological roots.

Second, Andover Theological Seminary (and others like it that were to follow) manifested all the signs of elite institutions. Andover was founded by members of the New England aristocracy to preserve their values and institutionalize their dominance in the ministerial profession. Having been rebuffed at Harvard, Pearson made the seminary more elite than Harvard by requiring a college degree for admission and by having three rather than one professor of divinity. Moreover, the six chief donors of the Seminary gave it all the buildings and houses in town for the faculty as well as an endowment twice as large as the one which Harvard had been building up for nearly two hundred years. As for the students it attracted, "the full seminary course was expensive in money and, even more important to a restless nation on the move, represented a substantial commitment of time."¹⁰ Thus the nation's first professional school chose to educate an elite group by requiring three rare resources—a college degree, discretionary funds, and leisure time.

Third, the elite of the most prestigious profession joined hands with their wealthy patrons to control professional education far beyond their local institution. In a pattern which foreshadows the hegemony of scientific medical schools a century later, Pearson and his colleagues at Andover established in 1815 the American Education Society which provided scholarships to students who would "pursue a regular three-year course of theological study" at institutions which conformed to the Andover model. Many seminaries that did not fall into line soon closed; those that did re-

7. *Ibid.*, 12-13.

8. *Ibid.*, 13.

9. *Ibid.*, 7.

10. *Ibid.*, 7-8.

ceived a steady and generous financial foundation. The Society's power is measured by the fact that it sponsored about one-quarter of all seminary students during the formative years 1815-1860 at approved seminaries.¹¹

Fourth, the majority of ministers and preachers attended neither college nor seminary during this early period or later. In fact, as the century progressed, a decreasing percentage of ministers had a college degree because of their greatly expanded number and rude circumstances in the Westward territories. They learned by apprenticing and by doing, but one should not assume that they were illiterate. Many of these self-taught preachers wrote eloquent sermons and essays. In this context, seminaries provided a formal training to the elite of the profession.

Finally the relation between the early colleges and the seminaries was complex and symbiotic. On one hand, seminaries were backed by and part of a church, a basic reason why they could survive as freestanding institutions, though hundreds of them closed as well. More specifically, they were missionaries of a denomination, a symbol of the church and its future, an organization designed to proselytize a given denomination's world view. Theirs was the terribly important task of training preachers fast enough to keep up with the rapidly expanding population and increasingly materialistic society. On the other hand, seminaries incorporated the attributes of a college—courses, professors, scholarly journals, texts, and an emphasis on academic study. Ideally, such attributes should enhance, not dampen, religious fervor; and the first seminaries such as Andover and Princeton embodied both evangelical religious passion and serious academic study.

However, this tenuous symbiosis tended to break down. As early as 1820 no less a person than Beecher wrote back to Andover,

I must say I have been troubled at the complaints which have been made at the want of animation of the Andover students Your preachers must wake up, and lift up their voice. They must get their mouth open, and their lungs in vehement action.¹²

Beecher unwittingly identified the anti-professional character of preaching that would paradoxically lead at the turn of the century to the decline of the ministry as a profession at the same time that seminaries incorporated the model of the modern, research university.

Although theological seminaries anticipated professional training, they only became professional schools in the full sense after the development of the large, diverse, specialized university. Most seminaries, and particularly the leading ones, responded to the model of the research university even if they did not belong to one. Most notable was the transformation of the Congregational seminary at Hartford from a relatively minor institution to a center which eclipsed Andover Theological Seminary. The turning point occurred when the seminary appointed David Hartranft to its faculty. He advocated hiring a young, scholarly faculty, each with his own specialty and an investigator in his own right. He quickly assumed the role of developing the faculty and introduced the elective system in 1891. He even started a Department of Sociology at the seminary. By 1910, the essential areas of study for mission work were identified as The Science and History of Missions, The Religions of the World,

11. *Ibid.*, 21A-B.

12. *Ibid.*, 23.

Sociology, Pedagogy and the Science of Language. Soon thereafter, the seminary at Hartford laid plans to become a "theological university." A mixture of Scottish pragmatism and German scholarship emerged as reflected in George F. Moore's description in 1908:

The ministry is a *practical* calling like law and medicine Just as it is not the primary end of the law school to produce men learned in the history and philosophy of jurisprudence, but to train men to *practice* law ... so it is not the primary end of the theological school to send out men learned in the history and philosophy of religion, but to train men for the practice of the ministry.¹³

This movement towards making the seminary a sophisticated professional school modelled after the modern university, with its mixture of pragmatism and specialized research, grew through the first third of the twentieth century. With it the common culture and curriculum of seminaries began to break down. Moreover, they began to look more like academic departments of religious or theological studies that had been established in universities and which granted a Ph.D. rather than a D.D. In 1893, a spokesman for Hartford said: "The theological seminary is not a church and was not intended for the spiritual training of future Ministers, but for their intellectual training." This view was further strengthened by the famous Kelly report of 1924 which contained a detailed survey of nearly all theological schools.¹⁴

There is good evidence to argue that *as the seminary became more professional it became less religious*. Although seminaries could and did build a world of their own and eventually developed national standards as well as other signs of professionalism, the Auburn study indicates again and again that those who emphasized spiritual belief, who retained fundamental touch with the primal religious experience, set up their own schools and attracted a wide following.

One manifestation of this trend was the establishment of religious training schools to provide an Army of the Lord large enough to serve the masses of immigrants spreading across the land. There were not enough ministers or seminaries to do the job; so evangelists such as Dwight L. Moody and A. T. Pierson called for "missionary training schools" to quickly prepare "gap-men" to meet the demand. Brevity and practicality guided the curriculum, and during the thirty years 1881-1921, several score of these schools opened their doors. They concentrated on Bible study and techniques of evangelical work, allowing students to drop in and out and providing the kind of low-budget, flexible institution that many of the denominations needed. As accreditation of colleges became more organized, and other structural changes altered the educational landscape, these schools either closed, merged, upgraded themselves, or became Bible schools.¹⁵ In whatever form they took, these low-level schools turned out God-fearing evangelists who could preach as well as—or sometimes better than—seminary graduates.

The success of gap-men and self-taught preachers against a powerful and elite group of professional ministers indicates the failure of most theories of the professions to appreciate the influence of client choices and economic factors in affecting

13. Auburn Historical Project, Ch. 4.

14. *Ibid.*, 84-87.

15. *Ibid.*, 72-75.

professional development.¹⁶ Seminary graduates had a greater command of their esoteric body of professional knowledge, but could not demonstrate that it made a significant difference in their ability to meet the spiritual needs of parishioners. In fact, as Beecher noted years before, it may have impeded that ability. Moreover, this inter-professional competition undermined religious authority by manifesting doctrinal relativity. This problem was abetted by the tendency to proselytize—to pursue potential clients.

In addition, other academic disciplines within the new university developed an expertise about Biblical scholarship, ancient languages, organizational behavior and even sociology that matched if not exceeded the expertise of seminarians. Thus graduates of seminaries had control over neither the services to clients in the field nor an expert body of knowledge in the academy. Religious training became a class phenomenon, with graduate seminaries training educated sons of “good” families to be ministers to the affluent or to be faculty at other seminaries, undergraduate seminaries training less educated sons to minister unto the middle classes, and missionary or Bible schools quickly turning out preachers for the farmers and workers throughout the newly settled territories. To some extent, this stratification ran along denominational lines.

Ironically, the very evangelical purity that inspired Pearson and his friends to found the first graduate seminary was driven from the seminary as it became more professional. The Auburn study implies a fundamental conflict between the university model of training critical minds and the religious model of preaching one’s convictions in order to convert others. The most interesting question is whether the ministry can be a profession except under circumstances of religious homogeneity which allow monopoly and suppression of competitors. For the history of the seminary from its foundations at Andover in 1806 to the Brown-May report in 1934 is the history of an elite losing touch with the core of religious experience as it acquired the attributes of a modern profession.

Emergence of the Academic Profession:

Since professional schools and the modern university grew up together in America, their confluence cannot be fully understood without considering the latter. For professors of pastoral counselling or pulmonary medicine are members of their respective professions and the academic profession as well.

In the eighteenth and through most of the nineteenth century there was no academic profession as we understand it today. The traditional colleges concentrated on mental discipline and piety. In the 1870s, President McCosh of Princeton affirmed: “Religion should burn in the hearts, and shine ... from the faces of the teachers....” One was to avoid education “which puts a keen edge on the intellect while it blunts the moral sensibilities....” This meant that through recitation of the classics and pages of disciplinary rules, colleges attempted to control the mental and moral lives of their students. They believed that restraint produces self-restraint, hard work produces diligence, and precise memorization and recitation produce a disciplined mind

16. William Rothstein effectively makes this critique in the first chapter of his book, *American Physicians in the 19th Century: From Sects to Science* (Baltimore, 1972).

in any field of endeavor. Such goals provided no support for an academic profession. Faculty spent their time being disciplinarians and hearing memorized recitations of ancient languages or mathematics. There was no academic career, salaries were low, and as President Eliot remarked in 1869, few men of talent were attracted to the academic calling.¹⁷

For both higher education and the academic professions, the decades following the Civil War witnessed major changes. Rapid population growth, urbanization, mass immigration and industrialization transformed the social context of higher education. Men from all walks of life were making fortunes, and few considered college as relevant to the business of living or the life of business. Most new colleges soon closed, and enrollments fell behind at others. For example, attendance in the 1870s at twenty of the oldest leading colleges rose 3.5 percent while the nation's population grew by 23 percent. The proportion of ministers, lawyers, and Congressmen with a college degree declined. Charles Kendall Adams of Michigan declared: "In all parts of the country, the sad fact stares us in the face that the training which has long been considered essential to finished scholarship has been losing ground from year to year." Representing his industrial and business peers, Andrew Carnegie wrote in 1889:

While the college student has been learning a little about the barbarous and petty squabbles of a far distant past, or trying to master languages which are dead, such knowledge, as seemed adapted for life upon another planet than this, as far as business affairs are concerned, the future captain of industry is hotly engaged in a school of experience, obtaining the very knowledge required for his future triumphs College education as it exists is fatal to success in that domain.¹⁸

While this crisis was developing, the foundations for its solution were being laid. Most important was the new German model of the university which replaced the preservation and transfer of classical learning with the pursuit of new knowledge through investigation and specialization.¹⁹ As early as the 1840s, a few scientists like Joseph Henry began to identify themselves as "men of science" and to create a community of professional scientists called the Lazzaroni. "We are overrun in this country with charlatanism," Henry said. "Our newspapers are filled with puffs of Quackery and every man who can burn phosphorous in oxygen and exhibit experiments to a class of young ladies is called a man of science."²⁰ Another early scientist, William Barton Rogers, founded in 1840 the Association of American Geologists, which soon evolved into the American Association for the Advancement of Science. The goal was to create a "community of the competent" which would maintain high standards and judge each others' work. The Standing Committee of the AAAS rejected papers they deemed unworthy, but still its membership was too large and so the inner circle

17. Lawrence Veysey, *The Emergence of the American University* (Chicago, 1965), 6-40.

18. Veysey, *Emergence*, 4-14.

19. Steven Turner "The Growth of Professional Research in Prussia 1818-1848—Causes and Contexts," *Historical Studies in the Physical Sciences*, 3 (1971), 137-182.

20. Thomas L. Haskell, "Professionalization as Cultural Reform," *Humanities in Society*, 1 (1978), 105-111.

of the Lazzaroni founded the National Academy of Science in 1863. Rogers became the founding president of M.I.T., and another member, Benjamin Pierce, drew up plans for the Lawrence Scientific School at Harvard. Others were instrumental in establishing research science at other institutions.

According to the historian Thomas L. Haskell the closest thing to a headquarters for this movement was the American Social Science Association, founded in 1865 in Boston. Members chose Rogers to be their first president, and most of the key reformers such as Charles Eliot, Daniel Coit Gilman and Andrew D. White were active members. Because of its concept of the social sciences, the ASSA became the center of professionalizing both within the university and without. It had four departments: jurisprudence for lawyers, education for professors, health for physicians, and "economics, trade and finance for businessmen." Thus its members played important roles in the civil service reform movement, the founding of the American Public Health Association and the National Conference of Social Work as well as the establishment of many professional associations for academic disciplines.²¹

Instead of a widespread crisis of authority, the rise of professionalism responded to a crisis among a small, Eastern elite. Haskell himself states that "the ASSA was the creation of gentlemen scholars, reformers, professional men and others of the New England gentry class." He continues:

The Victorian gentlemen who gathered annually in Saratoga Springs for ASSA meetings clearly felt that they were embarked on a crusade to elevate American culture and defend civilization itself; they felt this even as they undertook such pedestrian tasks as trying to standardize bar admission requirements nationwide, or petitioning the Massachusetts legislature for a law replacing coroners with trained physicians, or working for the creation of a board of medical examiners to crush "quackery."²²

Hundreds of these more intellectual gentlemen had traveled to Germany and discovered a new form of education that spoke to the needs of an industrial society and would enable them to transfer their ascribed status into an achieved one.

The first institutional manifestation of the scientific university occurred in carefully contained schools of science at older colleges such as Harvard and Yale.²³ But the movement towards the research-oriented university gained immeasurably with the founding of Johns Hopkins University in 1876. Designed to be primarily a graduate research institution, Johns Hopkins set off a fierce competition among both the older universities and the new ones established by the great fortunes of the industrial boom. Just as the German research university was greatly aided by princely competition, so the great industrial fortunes behind Hopkins, Chicago, Stanford and Clark hired entrepreneurial presidents to vie with each other for the best research faculty. This emphasis led to ever-increasing specialization, the establishment of departments, journals, professional associations, graduate training and in general the attributes of an academic profession. In its strictest form, academic research looked down on "professional work." Research was a way of life, a subordination of self

21. *Ibid.*, 112.

22. *Ibid.*, 110.

23. Light, "Introduction: The Structure of the Academic Professions," *Sociology of Education*, 47 (1974), 2-28.

and dedication to pure intellect and to facts. Yet on the whole, the German research model in the United States combined with pragmatism. More often its advocates argued that through scientific education and inquiry, rather than through mental and moral discipline, higher education would make original and direct contributions to the growing industrial society. "Slowly at first, but then with increasing speed, education began to be identified with material success, bringing it into the notice of those whose financial backing was necessary for its widespread growth." Shortly after his cutting remarks against higher education, Andrew Carnegie donated a hundred thousand dollars to Clark University, the purest of the research universities.²⁴

This selective account highlights the development of the research university to illustrate the relationships between status, security and science in the effort by the old upper classes to secure a new basis for its privilege, in the name of truth and equality. As with the American Education Society, the academic elite and great corporate wealth worked to impose their view on those institutions not immediately within their control. In 1900, the Association of American Universities was founded to promote research as the "intrinsic function of the American university"²⁵ and admitted only thirteen institutions on the basis of their graduate schools. Soon thereafter, Andrew Carnegie established the Carnegie Foundation for the Advancement of Teaching to provide pensions for professors at institutions that fit the elite Oxbridge or German models and thus filled a vital need in the formation of academic careers. However, when state universities applied to be admitted to the pension system in its second year, the Foundation's president, Henry Prichett, turned them down for lacking sufficient academic standards.²⁶ Pressures such as these and the new criteria of excellence which the promoters of research universities had established led the state universities to agree that research should be a major concern of their institutions.

The other great voice promoting the research university was Abraham Flexner, the head of several of the Carnegie-sponsored investigations of higher education whose recommendations were taken as guide for philanthropy by other industrial tycoons. Flexner spoke out against utilitarianism even to a degree that did not recognize its actual merger with research. "A university should not be a weather vane, responsive to every variation of popular whim. Universities must at times give society, not what society wants, but what it needs." The concern of the ideal university should be with four areas—the conservation of knowledge and ideas, the interpretation of knowledge and ideas, the search for truth, and the training of students who will practice and carry on such ideals. Flexner argued for the pursuit of science and scholarship within the university and questioned the appropriateness of vocational or popular education within the university. "A clear case can, I think, be made out for law and medicine, not for denominational religion, which involves a bias, hardly perhaps for education, certainly not at all for business, journalism, domestic 'science,' or library 'science'" By professions, Flexner meant, "learned professions—learned because they have their roots in cultural and idealistic soil" and

24. Veysey, *Emergence*, 3, 142–144, 266–267.

25. *Ibid.*, 130.

26. *Bulletin of the Carnegie Foundation for the Advancement of Teaching* (No. 1) 1907, 1–7.

derive their essential character from intelligence. Of course, the surgeon uses his hands; the physician uses a stethoscope; the lawyer uses a clerk and an accountant. But these are the accidents of activity. The essence of the two professions resides in the application of free, resourceful, unhampered intelligence to the comprehension of problems—the problems of disease, the problems of social life, bequeathed to us by history and complicated by evolution. Unless legal and medical faculties live in the atmosphere of ideals and research, they are simply not university faculties at all.

Undergraduate education could safely be left to its own devices. Articulating the Eastern bias of the research university model, Flexner believed that hundreds of colleges and universities “more especially in the South and West—though the East is not free—are hotbeds of reaction in politics, industry and religion, ambitious in pretension, meagre in performance, doubtful contributors, when they are not actual obstacles, to the culture of the nation.”²⁷

The rise of the research university and the academic profession was not inevitable or a natural evolution towards a predestined form, but an institutional form aggressively promoted by the old elite and new wealth to serve their purposes. In fact, its dominance has never been nearly so prevalent as scholars like Veysey, Jencks and Riesman, and Parsons and Platt would have us believe. American higher education has been influenced by three models: the Oxbridge idea of mental discipline and liberal arts for the gentile class; the Scottish model of useful knowledge imparted to anyone who wants to learn; and the German model of pure research in order to seek the deepest truth.²⁸ These conceptions imply different subjects, organized in different ways, taught to different kinds of students. Numerically, the research university model was adopted by a minority of elite institutions and imitated to some degree by many others. However, at those institutions and even at the elite universities, it was combined with a heavy emphasis on utilitarian practices and liberal arts undergraduate teaching.

At the time, diversity took the form of land-grant colleges, normal schools, and Bible schools.²⁹ Despite the numerical and sociological significance of these diverse institutions and their non-Germanic character, the creation of the research university provided the most powerful paradigm for what twentieth century higher education should look like. Besides shaping the leading institutions, it influenced the organization of academic careers in other institutions and constructed the only coherent account of academic reality so that the many who do not embody it still measure themselves against it.

The academic profession created by this social movement is surrounded by myths. It is important not only as one of the professions in its own right but also as the profession to which a practicing profession became allied when it established professional schools with professors, departments, journals, tenure ladders, and the like. Yet such faculty are a special case because of the distinct utilitarian cast of professional schools. Universities found professional schools attractive because they con-

27. Flexner, *The University: America, England and Germany* (Oxford, 1930), 5–45.

28. A. Engel, “The Rise of the Academic Profession in 19th Century Oxford,” in Lawrence Stone, ed. *The University in Society* (Princeton, 1973); and G. E. Davie, *The Democratic Intellect: Scotland and Her Universities in the 19th Century* (Edinburgh, 1961).

29. E. Alden Dunham, *Colleges of the Forgotten Americans* (New York, 1965).

tributed to the larger effort to make higher education more useful and therefore attractive to potential students. Professions—or the elite factions promoting rigorous professional schools—liked universities because their emphasis on science and research gave universalistic legitimation and respectability to their particular interests. At the same time, this marriage of convenience defined the structural ambiguity experienced by professional schools both in their relations with the university and with practicing members of their profession.

Turmoil and Resolution in Medical Education:

American medicine began the nineteenth century without many of the advantages of the ministry. It did not have the magisterial authority of a Bible on which to found its practice but instead worked with crude, often false notions about the body and its diseases. Herbal and botanical cures, largely practiced in the home or by folk healers, made up most “medicine” and were more effective than the heroic cures of physicians such as bloodletting and calomel (mercury), if only because they killed the patient less often.³⁰ The early medical profession also lacked the prestige of the ministry and the presence of venerable, wealthy institutions like churches to sponsor new initiatives and sustain them through difficult times. Most physicians worked part time on their own, and new physicians learned through the self-perpetuating, decentralized system of apprenticing for three years and paying \$100 annually for the privilege. Yet by the beginning of the twentieth century, medicine and particularly its schools had become the model which the ministry and every other profession wished to emulate.

Attempts to explain this transformation have tended to fall into two groups. One begins with modern medicine and emphasizes the possession of an esoteric body of valued knowledge as the basis for a social contract which grants the profession autonomy and certain privileges in return for selfless service and self-regulation.³¹ This account hardly helps to explain breeches of the contract, and it has little to say about professional activity in the pre-modern period. It does, however, provide a core argument for why preaching and pre-modern medicine had so much trouble coalescing into a unified profession. By contrast, the other group of theories considers the knowledge base secondary to the use of power, status and politics by an occupational group to corner a market, use state powers to exclude competitors, and gain control of social institutions.³² This perspective is more useful in explaining what happened in the ministry or medicine during the nineteenth century, yet it fails to clarify why such maneuvers were not wholly effective and were successfully challenged by competing sects.

30. Rothstein, *American Physicians*, Chapter 2.

31. Talcott Parsons, “The Professions and Social Structure,” in *Essays in Sociological Theory*, 34–39 (Glencoe, 1954). William J. Goode, “Community Within a Community: The Professions,” *American Sociological Review*, 22 (1957), 194–200. Bernard Barber, “Some Problems in the Sociology of Professions,” *Daedalus*, 92 (1963), 669–688.

32. Eliot Freidson, *Profession of Medicine* (New York, 1970). Terence J. Johnson, *Professions and Power* (London, 1972). Magali Sarfatti Larson, *The Rise of Professionalism: A Sociological Analysis* (Berkeley, 1977).

Apprenticeship prevailed until the rapid expansion of population and territory after the Revolution called for training in larger numbers. In larger towns and cities, several physicians banded together to form private medical schools where they offered two four-month terms of lectures for two years after which students apprenticed with a preceptor for another two years. This nascent form of professional education was highly profitable and superior in quality to the full apprenticeship system that had existed before. Throughout the nineteenth and early twentieth century it grew rapidly. The four schools all located in the Northeast in 1800 grew to 44 schools of regular medicine in 1850, only 17 of which were in the Northeast, and they graduated about 1,720 students a year (Table 1). In addition, three homeopathic and four eclectic schools had been founded. Regular schools peaked in 1906 at 130 institutions graduating about 5,000 students annually, while homeopathic and eclectic schools had already begun to shrink to a graduating class of 472 a year.³³

The curriculum through much of the nineteenth century included physics, inorganic chemistry, anatomy (by lecture only), physiology, etiology and diagnosis of disease, and medical theory. Moral values of the time prohibited students from doing actual dissection and from observing obstetrics. Of particular note was the preoccupation with theory-building in the absence of solid information, a pattern found among religious sects as well. Practically speaking, "these speculative and unempirical systems were a serious detriment to medical education in turning the student's attention away from empirical observation toward rationalistic nosologies."³⁴

Medical schools expanded in number and size because they were highly profitable. Since all the instruction was by lecture, equipment and overhead were minimal, and profits rose with enrollment. At a time when physicians averaged \$1,000 a year income, and \$2,000 was considered large, professors at the College of Physicians and Surgeons (Columbia) earned another \$2,000, and faculty at the University of Maryland an additional \$4,000 in student fees. Lecturing also enhanced their private practices. By mid-century, medical schools were competing openly for students, offering free lectures in the area to spread the word and touring the new students around the countryside before each semester. Preceptors, who formed a network of potential recruiters, were made fellows of the school and even granted honorary degrees. Active recruiting was needed, because medicine was not a popular career among the educated. Only 6 percent of the 1854-1864 graduates from the New York Free Academy chose medicine, while 20 percent chose to be lawyers and another 20 percent chose to enter teaching. An analysis of graduates from the major Eastern colleges from about 1800 to 1850 yielded similar figures.³⁵

A more serious consequence of this competition was that standards declined. Terms shortened, Latin was dropped, final exams became oral and "not unduly severe," and most schools certified apprenticeship without specifying how much time had been spent in it.³⁶ This competition, which intensified as the century progressed, was the principal reason why efforts to upgrade or reform medical education failed.

33. Rothstein, *American Physicians*, Chapter 5.

34. *Ibid.*, 81. Cf. D. Light, Jr., "Uncertainty and Control in Professional Training," *Journal of Health and Social Behavior*, 20 (1979), 310-322.

35. Rothstein, *American Physicians*, 95, 120.

36. *Ibid.*, 97.

Table 1. Medical Schools, Students, and Graduates by Sect 1850-1920

Year	Regular			Homoeopathic			Eclectic			Other			Total		
	Schools	Stu- dents	Grad- uates	Schools	Stu- dents	Grad- uates	Schools	Stu- dents	Grad- uates	Schools	Stu- dents	Grad- uates	Schools	Stu- dents	Grad- uates
1850	44	-	-	3	-	-	4	-	-	1	-	-	52	-	-
1860	53	-	-	6	-	-	4	-	-	2	-	-	65	-	-
1870	60	-	-	8	-	-	5	-	-	2	-	-	75	-	-
1880	76	9776	2673	14	1220	380	8	830	188	2	-	-	100	11826	3241
1890	106	13521	3853	16	1164	380	9	719	221	2	-	-	133	15404	4454
1900	126	22710	4715	22	1909	413	9	522	86	3	-	-	160	25171	5214
1903	126	24930	5088	20	1498	420	9	848	149	5	239	41	160	27615	5698
1906	130	23116	4841	19	1085	286	8	644	186	5	359	51	162	25204	5364
1910	109	20136	4113	12	867	183	8	455	114	2	68	30	131	21526	4440
1913	92	15919	3679	10	850	209	5	256	93	0	0	0	107	17015	3981
1916	82	13121	3274	10	638	166	3	263	78	0	0	0	95	14012	3518
1920	76	13220	2826	5	386	97	1	93	30	3	389	94	85	14088	3047

Source: Rothstein, William C. American Physicians in the 19th Century (Baltimore, 1972).

Moreover, it put medical schools in direct conflict with practicing physicians on two counts. First, more students meant more fees for medical faculty but more competitors for practitioners. And second, the greater the proportion of one's medical education taken in the schools, the less practicing physicians benefited from the fees and cheap labor of apprentices. Physicians in medical societies responded by trying to control licensing through the societies, but the schools succeeded in getting the M.D. degree recognized as the equivalent to passing the licensing examination.

Despite their low standards and the inferior quality of their recruits, these schools constituted a distinct improvement over the apprenticeship system because medical school faculty generally knew more and taught better than most practitioners. In addition, the curriculum became more uniform so one could begin to have some idea what medical students were learning.

In an atmosphere of enmity and endless factional wars, the wealthy and best educated physicians banded together to form exclusionary societies. Their members also formed the nuclei of state medical societies, which in turn pressed state legislatures to pass licensing laws and have the licenses issued by the societies. This pattern shows that the purpose of the laws was not regulatory but honorific. As medical schools began to form, they realized that just as a letter of commendation from a tutor was not so effective as a license in giving a physician an official stamp of legitimacy, so independent school diplomas were not nearly so prestigious as a degree from a state chartered institution. Thus most schools applied for a charter, and if it was refused, they found some liberal arts college to use its charter for granting degrees:

Liberal arts colleges were often receptive to these overtures because the medical schools made no financial demands on them and gave them added prestige. Regardless of whether the medical school was independent or legally affiliated with a liberal arts college, all medical schools of the period were proprietary in that they were financially autonomous. This greatly restricted the influence of the liberal arts colleges over the actions of the medical schools.

Hence early medical education was attached to educational institutions yet remained relatively autonomous.³⁷

While efforts were being made to standardize and enhance the image of medical education, a medical elite not unlike the ministerial elite took shape and tried in various ways to mold medicine in its image. From colonial times the sons of affluent or prominent families on the East coast went to Europe—principally Edinburgh—for further study.³⁸ While it became commonplace among the socially prominent physicians, it certainly did not among most physicians. With common social and professional bonds, these graduates banded together and tried in various ways to restrict the practice of medicine to those who were licensed *and* had a doctor's degree.

The failure of the proto-professional ideas of John Morgan (1765) demonstrates that "an elite based solely on social distinction could not succeed in this country. The next best thing was an intellectual medical elite based on the universities."³⁹ In the decades that followed, this status transfer took place as the medical elite clustered

37. *Ibid.*, Chapters 4, 5 and p. 88.

38. Rosemary Stevens, *American Medicine and the Public Interest* (New Haven, 1971), 16.

39. *Ibid.*, 17.

around Harvard, Pennsylvania, Columbia and a few other schools. To appreciate the social dynamics of this process, one must remember that the best educated, Edinburgh-trained physicians could not be medically more effective than the semi-literate botanical practitioners. In fact, given their bold, confident practice of prescribing mercury and draining large quantities of blood, they were often more dangerous.

Leading physicians tried to upgrade medical education by forming the American Medical Association in 1847. Studies had shown that no more than 20 percent of medical students at the best Eastern schools had a college degree, and elsewhere (even at Penn and Bellevue Hospital) the figure was closer to one percent.⁴⁰ Newly formed medical schools were diluting their course of study, and so the AMA convention of 1847 proposed higher entrance requirements, a longer course of study, close supervision of apprenticeship experience, and a list of specific courses. None of these would actually improve medical services for reasons already stated, and the proposals failed because no school wanted to follow them.

During the second half of the nineteenth century, stratification within the medical profession further increased. The best educated and wealthiest physicians settled in the major cities and formed elite societies. As the early medical associations had merged into state societies and become open to everyone, elite physicians dropped out and formed their own groups. "The nominal basis of these elite societies was scientific." They held and controlled faculty positions at nearby medical schools, attending positions at major hospitals and consultations. The editor of *Medical Record* wrote in 1877: "There are always several so-called professional rings which exist in larger towns and cities. The principal ones are those which revolve around a particular college, and are almost absolute in their exclusiveness." Criteria for belonging included family income, status and ethnicity. "No immigrants were members of the New York Medical and Surgical Society, even though some of the city's leading medical scholars were immigrants. Ostentatious display also became common. Wealthy San Francisco physicians, for example, often owned foreign-made gold-plated instruments...."⁴¹

These physicians began to specialize. The work was easier, more prestigious, and the hours more under their control. Writing in 1875, John Billings found a close relation between the best-educated, most specialized, and most influential physicians and social background. As medically valid knowledge grew in the second half of the nineteenth century, more of this elite travelled to Germany for specialized training and returned to form specialty societies and hospitals. Between 1864 and 1902, fifteen specialty societies were formed. General practitioners felt economically and professionally threatened by this growing cadre and tried unsuccessfully to deny specialists representation in the AMA.⁴²

The emergence of medical professional schools was further complicated by factional wars and the development of competing sects. Many individuals avoided regular physicians at all costs, and many physicians as well were disturbed by what their heroic techniques did to their patients. The outcry against regular medicine grew as its ranks increased, and it found expression in the Thomsonian Movement. Samuel

40. Rothstein, *American Physicians*, 113.

41. *Ibid.*, 202-205.

42. *Ibid.*, 205-213.

Thomson (1769–1843) organized current knowledge of botanical medicine into a useful and charming book, containing frightening stories of patients made worse by regular physicians, with “their instruments of death, Mercury, Opium, Ratsbane (arsenic), Nitre and the Lancet.” Thomson established Friendly Bontanical Societies which grew so rapidly that by 1833 he employed 167 agents to organize them. Regular physicians tried to use licensing laws to discredit Thomsonian practitioners. They and the lay members of their societies responded by initiating a drive to repeal the laws. To a large extent this drive succeeded. It should be understood not only as part of Jacksonian populism but also as a grassroots attack on the therapies and postures of regular physicians, extolling the ability of people to take their illnesses into their own hands.⁴³

A second important sect was homeopathy, started in Germany by Samuel Hahnemann (1755–1843) near the turn of the century.⁴⁴ Homeopathy focused on very diluted dosages of chemicals which produced symptoms like those of the disease. From the perspective of regular medicine, this was no treatment at all, but no treatment often did less harm than heroic therapies. In testing dilutions, Hahnemann also emphasized another advance, very detailed clinical observations of the course of illness. Finally, he strongly advocated preventive medicine—fresh air, bed rest, proper diet, sunshine and public hygiene.

Ironically, homeopathy presented regular medicine with its greatest professional challenge though its practices were the most compatible of all the opposing sects, and regular physicians were the first to convert to homeopathy. But the threat came from homeopathy being the only upper-class sect, arriving from Europe with the approval of the European nobility and upper classes. Some of the best-educated regular physicians in Boston and New York became homeopaths while still considering themselves to be regular physicians. However, homeopathy attacked those sectarian beliefs of regular medicine which had to be taken on faith. This left the regulars no choice but to cast them out. Homeopaths were called “vile pretenders,” and the worst transgression was to consult with a homeopath.⁴⁵ The AMA code of ethics prohibited consulting with “irregular practitioners.”

Another sect of “irregular practitioners” who opposed the damaging drugs used by regular physicians was osteopathic medicine, founded by Andrew Taylor Still (1828–1917).⁴⁶ Still began as an apprentice-trained physician in the Midwest but became totally disillusioned by the brutal and deadly effect of regular therapies. He developed a theory of osteopathic lesions, particularly in the spine, that weakened the body and made it susceptible to disease. Correcting the lesions by manual manipulation could directly eliminate some problems and indirectly eliminate others by restoring the body’s natural defenses. Still became a charismatic healer, built up a considerable following, and opened the first osteopathic school in 1892. Other schools followed,

43. *Ibid.*, Chapter 7.

44. *Ibid.*, Chapter 8.

45. *Ibid.*, Chapter 12.

46. Based on Norman Gevitz, “The D.O.’s: A Social History of Osteopathic Medicine” (diss. Chicago, 1979); and Gary L. Albrecht and Judith A. Lens, “The Professionalization of Osteopathy: Adaptation in the Marketplace,” typescript 1980.

and although osteopathic manipulation was a strange new therapy, osteopathic physicians did not lack patients.

Was the process by which "scientific medicine" gained a monopoly over medical education and practice an elitist take-over or the inevitable result of the first valid system of diagnosis and treatment? The evidence indicates that it was both. On one hand the breakthroughs in anesthesia, antiseptics and bacteriology produced demonstrably superior results to any sectarian approach.⁴⁷ On the other hand, the longtime strategy of the medical elite to emphasize scientific learning finally paid off, and they first introduced and promoted these ideas to a skeptical if not hostile audience of regular physicians. Moreover, training in scientific medicine was longer and far more costly (because of labs) than regular training, and this played into the hands of the elite, who were located at the wealthier university medical schools.

For the first time in 1871, Harvard required a graded rather than a repetitive curriculum, and a number of other schools offered the option of a graded curriculum. Harvard also required nine-month terms for each of three years, and as medical schools had feared, this reduced enrollment so that Harvard had to join the University of Michigan in taking the radical step of putting its medical school faculty on salary.⁴⁸ Ten schools adopted the compulsory three-year graded curriculum during the 1870s, and 33 more joined them during the 1880s, but the vast majority of schools refused to go along.

Advocates of educational reform also used licensing laws to force the majority of schools to adopt the required, three year curriculum. In 1901, the National Conference of State Medical Examining and Licensing Boards was created and thereby enabled national standards to be set. These included attending a medical school with the three-year compulsory curriculum. This political move by educational leaders took place in the context of rapidly proliferating proprietary medical schools which catered to lower-middle class and working class students. Further pressure came from requirements for lab work and the founding of the Association of American Medical Colleges, which in 1894 required that all members have a four-year graded curriculum plus higher entrance requirements for admitting students. By these moves, reformers sought to reduce the number of students and train them better.

A sound argument can be made that these reforms, which had been tried before, succeeded because for the first time the graduates of the new curriculum had more effective therapies for their patients. With this basic market advantage, the better schools could ignore the proprietary schools, whose graduates could no longer be licensed anyway. The pinnacle of these reforms was, of course, the Johns Hopkins Medical School, whose standards were the highest in the world.⁴⁹ It was built around both a new research university and a major hospital, thereby creating the organizational paradigm for medical education to this day.

All these improvements were expensive, and by 1900 medical schools could no longer be self-supporting. This cost increase spelled the death of commercial medical schools. As Abraham Flexner astutely observed in his 1910 report: "Nothing has per-

47. Rothstein, *American Physicians*, Chapters 13 and 14. Stevens, *American Medicine*, Chapters 2 and 3.

48. Rothstein, *American Physicians*, 285.

49. Stevens, *American Medicine*, 66-72.

haps done more to complete the discredit of commercialism than the fact that it has ceased to pay."⁵⁰ From a peak of 160 schools in 1903, 51 closed by the year Flexner issued his report in 1910. Abetted by the report and pressure from state medical boards, the decline continued so that by 1920 only 76 schools remained.

Almost all of sectarian medical schools converted or closed as well. The increasingly stringent requirements for medical education, the lack of an effective alternate system of treatment, and decreasing differences between homeopathic and scientific medicine all contributed to the rapid decline of competing models. Ironically, however, one sect which most historians consider too small and rag-tag to include did survive. Osteopathic medicine did offer a distinctly different mode of therapy which it combined with the fruits of scientific medicine. It survived not because it was proven to be scientifically effective but because a sufficient number of customers in the marketplace deemed it to be more effective than scientific medicine.⁵¹ By 1916, the American Osteopathic Association required four-year graded curricula in its schools, and by 1923 it had succeeded in getting 46 states to licence osteopaths, 27 of them with an osteopathic board of examiners.

This account puts the Flexner report in a rather different perspective than is usually offered. For the momentum of fiscal and structural changes was well underway before his study. In its unrelenting drive against schools that did not conform to the new standards of scientific medicine, the medical elite formed a Council on Medical Education in 1904 which initiated investigations of these schools in 1906. However, Arthur Bevan, chairman of the Council, thought these investigations were too lenient, and in 1908 the Carnegie Foundation for the Advancement of Teaching agreed to assess medical schools "guided very largely by the Council's investigation. . . ."⁵²

Flexner's report fulfilled every expectation of Bevan and his friends. It tore apart commercial schools with vivid, embarrassing prose. Flexner called Kentucky "one of the largest producers of low-grade doctors in the entire Union"; Chicago "the plague spot of the country"; Bennett Medical College a "stock company practically owned by the dean of the school"; and other schools "dirty" or "utterly wretched." In providing plenty of detail, Flexner used more the language of a political campaign than an objective report. At the same time, he extolled Johns Hopkins as the educational model for a *university* medical school and argued for a large permanent endowment to finance such a model. Bevan and members of his Council had predicted that publicity and approval from the Carnegie Foundation "would assist materially in securing the results we were attempting to bring about." Indeed, the nine largest foundations followed Flexner's recommendations and gave \$154 million over the next 24 years to secure the results the Council desired, mostly at the leading private schools.⁵³ Thus the socially and professionally prominent circle of physicians har-

50. Rothstein, *American Physicians*, 293.

51. *Ibid.*, Chapters 15 and 16. This is the central error made by Rothstein in his analysis of the professions. He fails to recognize that clients remain a key judge of what treatments are "valid."

52. Stevens, *American Medicine*, 66.

53. *Ibid.*, 67; and Howard S. Berliner, "A Larger Perspective on the Flexner Report," *International Journal of Health Services*, 5 (1975), 573-592.

nessed the great fortunes—principally of Carnegie and Rockefeller—to sponsor their concept of medical education and crush competing ideas.

The Hopkins model which Flexner championed has transformed not only medical education but also medical care. The internal structure inevitably led to more specialization, sub-specialization, and research based on the germ theory of disease. As this model spread, it reorganized medical services in its image. The resulting system with its vast surplus of specialists, its expensive focus on hospital care, its fragmentation, its neglect of public health, and its exclusion of working-class students (particularly blacks) are all a logical consequence. Following Flexner, medical education manifests a structural ambiguity between being a training center for physicians who serve the people and being a research center for specialists who investigate the frontiers of medicine. As a rule, faculty attempt to clone themselves.

If the model which the inner circle of medicine had sponsored was the most effective, one would judge its power politics as enlightened self-interest. Without question, the germ theory of disease has proven itself superior to any of the sectarian theories it replaced. But the economic and social costs have been high. And the recent studies showing that clinical medicine made only a small contribution to the decline in mortality from 1900 to 1970 give one pause.⁵⁴ It is interesting that at the very time when millions of immigrants and factory workers were living in miserable, disease-producing conditions and when breakthroughs in bacteriology were providing the basis for spectacularly successful public health campaigns, the medical elite chose an educational model that applied those breakthroughs exclusively to the individual organs of individual patients.

Professional Education in Comparative Perspective:

This highly selective study has attempted to highlight some of the social dynamics that shaped modern professional schools in the United States. It raises the question: Do comparable patterns hold in the development of professional and higher education in other countries?

One general theme concerns the disdain of academics towards the practical and the suspicion of professionals towards the academic. The American case adds complexity (which also existed for some branches of medicine in England) by noting that competing sects, particularly in face of little hard data, energetically spun theories as if intellectual abstractions would legitimate their daily work. In contrast, universities moved towards the technical research model of Germany because it promised great economic benefits from pure research. The Germans, it seemed, had somehow taken a similar attitude towards pure theory and research and made it bear very practical fruit.

54. Thomas McKeown, *The Role of Medicine* (Nuffield, 1976). John B. and Sonja M. McKinlay, "The Questionable Contribution of Medical Measures to the Decline of Mortality in the United States in the Twentieth Century," *Milbank Memorial Fund Quarterly*, 53 (1977), 405ff. John B. McKinlay, "Epidemiological and Political Determinants of Social Policies Regarding the Public Health," *Social Science and Medicine*, 13A (1979), 541-558.

When professional schools did join research-oriented universities, both sides somewhat modified their stand. That special corner of a profession which directed training was by definition academic as well and quickly assumed all the attributes of the research academic model. These intricate layers of feeling and action can best be understood as the results of the structural ambiguity in which professional schools find themselves.

Another major theme concerns the relation between the professions and social status. The case for status transfer in the United States is supported by events in England. On one hand, possessors of land, blood and title who made up the old elite needed to transpose their status to a new key, and the professions provided a modern status and sphere of work in which they could use their advantages to excel. Moreover, they worked energetically to elevate their professional status still further. On the other hand, the professions were a way for the new industrialists to convert their millions into a high-status enterprise. Although space prevented the discussion of the legal profession, a similar process also occurred there as the center of the profession shifted towards specialists in corporate and tax law.

Finally the relation between the state and the professions is contradictory. It appears that in the absence of strong state control (as in Germany), professional associations arose to serve similar functions of organization and regulation. In this case, professional leaders used the state's powers to control competitors and promote their own exclusive interests. But participation by the state did not necessarily reduce exclusiveness or inequity. Often it supported them. This is particularly the case with American medical education, where professional leaders and the state worked together to make medical education less available and more exclusive during a period of great diversification in the rest of higher education.⁵⁵

55. The growing importance of the professions in American society is evident in the increase of the professional/technical share of all occupations from 4.3% to 7.5% between 1900 and 1940. Larson, *The Rise of Professionalism*.